CLAIMS

WHAT IS CLAIMED IS:

- 1. A method of diagnosing a vehicle via a remote computer, the vehicle having an on-board computer /for generating a diagnostic trouble code signal, the diagnostic trouble code signal being related to a passed status of the vehicle or a problem status of the vehicle, the method comprising:
 - connecting a portable code reader to the on-(a) board computer;
 - (b) communicating diagnostic trouble signals from the on-board computer to the code reader;
 - communicating from /the code reader to a personal computer respective ones of the diagnostic trouble code signals which are related to a problem status of the vehicle;
 - communicating the respective ones of the diagnostic trouble gode signals which are related to a problem status of the vehicle from the personal computer to a remote computer, the remote computer being configured to correlate the diagnostic trouble signals to problem description data for diagnosing the vehicle; and
 - communicating from the remote computer to the personal computer problem description correlated to the respective ones of the diagnostic troub/e code signals related to a problem status of the wehicle.
- The method of Chain 1 wherein (b) further comprises 2. pr/obl/em indicating the status of the vehicle illuminating one of #a plurality of color indicators at the code reader, each color indicator representing a respective status derived from the diagnostic trouble code signals.

- 3. The method of claim 1 wherein (e) further comprises communicating product/service provider information related to the problem description data.
- 4. The method of Claim 1 wherein (a) comprises utilizing a cable connection for communicating with the on-board computer using the code reader.
- 5. The method of Claim 1 wherein a computer network is used for communicating between the personal computer and the remote computer.
- 6. The method of Claim 5 wherein the computer network is the Internet and the remote computer is associated with a web site.

- 7. A method of diagnosing a status of a vehicle, the vehicle having an on-board computer for generating a diagnostic trouble code signal, the diagnostic trouble code signal being related to a problem status of the vehicle, the method comprising:
 - (a) receiving the diagnostic trouble code signals from the personal computer with a remote computer;
 - (b) correlating the diagnostic trouble code signals to problem description data for diagnosing the vehicle; and
 - (c) communicating the problem description data to the personal computer.
- 8. The method of Claim 7 wherein (c) further comprises communicating product service provider information related to the problem description data.
- 9. The method of Claim 7 wherein (c) further comprises facilitating a vehicle owner/provider electronic communications link between the personal computer and a product/service provider computer.
- 10. The method of Claim 9 wherein the electronic communications link is established via the Internet and the product/service provider computer is associated with a web page.
- 11. The method of Claim 9 wherein (c) further comprises tracking a number of times the vehicle owner/provider electronic communications link is established.
- 12. The method of Claim 7 wherein (b) further comprises hosting a database having problem description data for diagnosing the vehicle indexed to diagnostic trouble codes.

13. A vehicle diagnosis system for diagnosing a status of a vehicle, the vehicle having an on-board computer for generating diagnostic trouble code signals, the diagnostic trouble code signals being related to a passed status of the vehicle or a problem status of the vehicle, the system comprising:

a portable code reader configured to electronically communicate with the on-board computer for receiving diagnostic trouble code signals from the on-board computer, the code reader having an output device for indicating a status of the vehicle in response to receipt of the diagnostic trouble code signals from the on-board computer; and

a personal computer configured to electronically communicate with the code reader for receiving from the code reader /diagnostic trouble code signals related to a problem status of the vehicle, the computer personal having remote electronic communications interface, the remote electronic communications interface being configured to establish an electronic communications link between the personal computer and a remote computer for transmitting the diagnostic trouble code signals to the computer.

- 14. The vehicle diagnosis system of Claim 13 wherein the output device is configured to visually indicate a status of the vehicle in response to receipt of the diagnostic trouble code signals from the on-board computer.
- 15. The vehicle diagnosis system of Claim 14 wherein the output device is configured to visually indicate a status of the vehicle with a color indicator.

- 16. The vehicle diagnosis system of Claim 13 wherein the code reader is configured to indicate a failure to receive diagnostic trouble code signals.
- 17. The vehicle diagnosis system of Claim 16 wherein the output device is configured to indicate an inconclusive status of the vehicle in response to a failure to receive diagnostic trouble code signals from the on-board computer.
- 18. The vehicle diagnosis system of Claim 13 wherein the code reader further comprises a cable connector interface for electronically communicating with the on-board computer using the code reader.
- 19. The vehicle diagnosis system of Claim 13 wherein the electronic communications link is establishable via a computer network.
- 20. The vehicle diagnosis system of Claim 19 wherein the computer network is the Internet and the remote computer is associated with a web site.
- 21. The vehicle diagnosis system of Claim 13 wherein the code reader and the personal computer are the same device.



22. A portable code reader for diagnosing a status of a vehicle, the vehicle having an on-board computer for generating a diagnostic trouble code signals, the diagnostic trouble code signals being related to a passed status of the vehicle or a problem status of the vehicle, the code reader comprising:

an on-board computer connection interface configured to electronically communicate with the on-board computer for receiving diagnostic trouble code signals from the on-board computer;

an output device configured to indicate a passed or a problem status of the vehicle in response to receipt of the diagnostic trouble code signals from the on-board computer and an inconclusive status of the vehicle in response to a failure to receive a diagnostic trouble code signals from the on-board computer;

- a code reader memory configured to store diagnostic trouble code signals received from the on-board computer connection interface related to a problem status of the vehicle; and
- a personal computer connection interface configured to electronically communicate with a personal computer for transmitting diagnostic trouble code signals indicative of a problem status stored in the code reader memory for diagnosing the vehicle.
- 23. The portable code reader of Claim 22 wherein the output device is configured to visually indicate a status of the vehicle.
- 24. The vehicle diagnosis system of Claim 23 wherein the output device is configured to visually indicate a status of the vehicle with a color indicator.

25. The portable code reader of Claim 22 wherein the onboard computer connection interface is a cable connector interface.

04 631

FOTETOL EEFTSOOL